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09/657,738	09/08/2000	Junji Otani	NV/P-22090/A	3187

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CIBA SPECIALTY CHEMICALS CORPORATION  
PATENT DEPARTMENT  
540 WHITE PLAINS RD  
P O BOX 2005  
TARRYTOWN, NY 10591-9005

EXAMINER
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YAMNITZKY, MARIE ROSE

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/657,738

Applicant(s)

OTANI ET AL.

Examiner

Marie R. Yamnitzky

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7, 13, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7, 13, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's amendment filed on February 14, 2005, which amends claims 7 and 13, cancels claims 14-17 and adds claims 22 and 23, has been entered.

Claims 7, 13, 22 and 23 are pending.

2. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Support for the compounds of the first and fourth formulae in claim 13 is not clear.

3. Claim 13 was previously rejection under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. See the Office action mailed July 31, 2002. In applicant's response received November 04, 2002, applicant pointed to portions of the specification for support. In the next action on the merits, mailed November 19, 2003, the examiner did not repeat the rejection, but did not explicitly state that the rejection was withdrawn.

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Present claim 13 is limited to four specific compounds. (Claim 13 as rejected in the action mailed July 31, 2002, was limited to twelve specific compounds.) The examiner has reconsidered the issue of new matter and reinstates the rejection as applicable to the compounds of the first and fourth formulae in present claim 13. While compounds of the second and third formulae in present claim 13 are supported by preferred embodiment (c) on page 15 of the specification, the compounds of the first and fourth formulae are not within the scope of any of the preferred embodiments set forth on page 15 and are not explicitly disclosed elsewhere in the specification.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Jost et al. (4,585,878) for reasons of record in the Office action mailed November 10, 2004 and the additional reasons set forth below.

In the Office action mailed November 10, 2004, the Jost patent was applied with reference to applicant's previously elected species (a compound of present formula I in which each of R<sub>1</sub> and R<sub>2</sub> is C<sub>1-25</sub> alkyl and each of Ar<sub>1</sub> and Ar<sub>2</sub> is a substituted or unsubstituted naphthyl).

The Jost patent also renders obvious compounds of present formula I in which Ar<sub>1</sub> and Ar<sub>2</sub> independently stand for a phenanthryl or anthryl group. Claim 1 of the Jost patent specifically recites “anthryl or phenanthryl” as possibilities for R<sub>1</sub> and R<sub>2</sub> of Jost’s compound of formula I. R<sub>1</sub> and R<sub>2</sub> in Jost’s compound of formula I correspond to Ar<sub>1</sub> and Ar<sub>2</sub> in compounds of present formula I. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make various compounds within the scope of Jost’s claim 1 in order to provide compounds useful for Jost’s purposes.

The preamble of claims 7 and 13 has been amended to indicate that the claimed diketopyrrolopyrroles are electroluminescent. While Jost et al. do not teach that the diketopyrrolopyrroles disclosed or suggested in the patent are electroluminescent, Jost et al. do provide motivation to make compounds that are within the scope of present claims 7 and 13. Those compounds suggested by the prior art that are within the scope of the diketopyrrolopyrrole as defined in present claims 7 and 13 are inherently electroluminescent.

6. Applicant’s arguments filed February 14, 2005 have been fully considered but they are not persuasive.

Applicant argues that the present naphthyl and phenanthryl substituted compounds have surprisingly superior electroluminescence (EL) compared to the diketopyrrolopyrrole (DPP) compounds exemplified by Jost. Applicant argues that Jost et al. do not suggest using the DPP compounds for EL purposes, do not present data regarding the presently claimed compounds, and fail to point to selection of the presently claimed compounds for EL purposes.

The examiner has reconsidered the data/evidence of record.

The Rule 132 Declaration received January 18, 2005, which is a copy of the declaration originally received May 07, 2002, provides data pertaining to four DPP compounds. Each of the four DPP compounds is within the scope of Jost et al., and each contains preferred substituents as taught in column 5 of the Jost patent. None of the four compounds is within the scope of the present claims. For the EL device structure set forth in the declaration, compounds C-2 and C-3 did not show electroluminescence, the device made with compound C-1 exhibited “heterogeneous/uneven” emission, and the device made with compound I-1 exhibited “homogeneous/uniform” emission.

The examiner notes that Compound C-2 from the declaration received January 18, 2005 is the same as the compound used in Example 8 as described on page 12 of applicant's response received August 25, 2004. The examiner notes that the compound as used in the EL device of this Example 8 does show electroluminescence. This compound is also demonstrated to show electroluminescence in EP 0 499 011 A1 (e.g. see page 15 of EP 0 499 011 A1, which is of record).

The data set forth in the present specification (e.g. see Table 7 on pages 52 and 53) also demonstrate that some compounds within the scope of Jost's preferred compounds are capable of showing electroluminescence. For example, the EL device of Example 69, which utilizes a light-emitting material of Example 1, provides an EL intensity of 1410 cd/m<sup>2</sup>. The light-emitting material of Example 1 is within the scope of Jost's preferred compounds.

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While the data of record demonstrate Jost's preferred compounds do not all demonstrate the same EL capabilities, the data also demonstrate that the EL performance of a particular compound can also be dependent upon device structure, and that Jost's preferred compounds do encompass compounds capable of showing electroluminescence.

It is the examiner's position that the showings with respect to electroluminescence are not persuasive with respect to the patentability of the compounds of present claims 7 and 13 over Jost et al. Although the prior art is silent with respect to electroluminescence, the prior art suggests compounds that are within the scope of present claims 7 and 13. The preamble recitation of "electroluminescent" places no limitations on the claimed DPP beyond the formulae set forth in the claims. The compounds which are suggested by the prior art do not become patentable simply by recitation of a property that is inherent in the compounds but not recognized by the prior art.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 7, 22 and 23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9 of copending Application No. 10/354,602. Although the conflicting claims are not identical, they are not patentably distinct from each other. Claim 9, the sole claim of the '602 application, claims twelve specific diketopyrrolopyrroles. The specific diketopyrrolopyrrole represented by the first formula in copending claim 9 is within the scope of diketopyrrolopyrroles defined by present claims 7 and 22, and is the same specific diketopyrrolopyrrole as defined by present claim 23.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The examiner notes that a Notice of Allowance and Fee(s) Due was mailed January 24, 2005 in the '602 application, and it does not appear that the issue fee has been paid. However, PALM does not show the '602 application as abandoned for failing to pay the issue fee. In the event that the '602 application has been abandoned, this rejection is moot.

9. Miscellaneous:

In line 1 of claim 7, "Electroluminesent" should read --Electroluminescent--.

In line 1 of each of claims 13, 22 and 23, "electroluminesent" should read --electroluminescent--.



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10. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for Art Unit 1774 is (703) 872-9306 for all official faxes.  
(Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
June 26, 2005



**MARIE YAMNITZKY  
PRIMARY EXAMINER**

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